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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,059	01/24/2002	Michael T. York	10541-1185	3379

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EXAMINER
PHAM, LEDA T

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/057,059	YORK ET AL.	
	Examiner	Art Unit	
	Leda T. Pham	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 September 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 January 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1 - 24 in Paper No. 9/9/02 is acknowledged. The traversal is on the ground(s) that the examiner improperly issued the requirement for restriction. This is not found persuasive because claims 1 –24 is a product of making while the claim 25 is a method of making. The fields of search for method of making a device and for a structure of the device, i.e., the product are not coextensive. Determinations of patentability for claims regarding a method of making the device and claims of the device's structure claims are different because the process limitations and structure limitations are given differing patentable weight. For example, in a process of making a device, claimed language of a procedure and its sequential steps of making the device would be considered significant, while in a structure of a device, claimed language of the device's elements and their structural relationships as well as their functional/operational relationships would be considered significant. Therefore, different claim analysis and searches for a method of making a device and a structure of the same require separate searches.

The requirement is still deemed proper and is therefore made FINAL.

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "pole assembly 86, expendable split 108". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3 recites the limitation "front pole section" and "rear pole" in line 2 of claim 3. There is insufficient antecedent basis for this limitation in the claim. In light of spec. it is understood as "front pole piece" and "rear pole piece".

4. Claim 18 recites the limitation "front pole section" and "rear pole section" in line 4 of claim. There is insufficient antecedent basis for this limitation in the claim. In light of spec. it is understood as "front pole piece" and "rear pole piece".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 – 4, and 11 – 13 are rejected under 35 U.S.C. 102(b) as being anticipated by C. L. Shano (U.S. Patent No. 3,305,740).

Referring to claim 1, Shano discloses a bobbin (figure 1 - 3) for use in an electrical machine comprising a bobbin (36) having a slit (63) through a section of the bobbin.

Referring to claim 2, Shano discloses a rotor assembly (figure 1 – 3) for use in an electrical machine, the assembly comprising a bobbin assembly (36) having a split (63) through a section of the bobbin assembly for allowing the bobbin to expand, an excitation winding (35) wrapped around the bobbin assembly (36) and a pole assembly (33, 34) for receiving the bobbin wrapped with the excitation winding.

Referring to claim 3, Shano discloses the pole assembly (33, 34) includes a front pole section (34), and a rear pole (33), the pole assembly including an integrated hub (30, 31) for receiving the bobbin wrapped with the excitation winding.

Referring to claim 4, Shano discloses the bobbin assembly (36) is a single piece component (figure 3).

Referring to claim 11, Shano discloses the pole assembly (33, 34) includes a groove (65) that aligns with the expandable split of the bobbin assembly (36).

Referring to claim 12, Shano discloses the rotor assembly further comprising a shaft (26) that is received in a bore formed in the pole assembly (33, 34), and a slip ring assembly (37, 38) attached to the shaft (26) and in communication with the excitation winding (35).

Referring to claim 13, Shano discloses the bobbin (36) wrapped with the excitation winding (35) is press fit onto the hub (30, 31) of the pole assembly.

7. Claims 17, 19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Asao (U.S. Patent No. 6,107,719).

Referring to claim 17, Asao teaches the bobbin assembly (figure 1) for use in an electrical machine, the assembly comprising a first end cap (16b); a second end cap (16b); a rigid sleeve (16a) having an expandable split (161); wherein the first end cap and second end cap are attached to the rigid sleeve.

Referring to claim 19, Asao discloses the bobbin wherein the first end cap has an expandable split and the second end cap has an expandable split (figure 1).

Referring to claim 21, Asao teaches the bobbin assembly (figure 1) having the first and second end caps making from a polymer (lines 65 – 67, column 3).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 5 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shano in view of Kusumoto et al. (U.S. Patent No. 5,081,383).

Referring to claim 5, Shano substantially discloses the claimed invention as applied in the rejection against the claim 2 above but fail to clearly discloses the bobbin assembly having a first end cap, a second end cap and a rigid sleeve having an expandable split, wherein the first and second end caps are attached to the rigid sleeve.

Kusumoto discloses a bobbin assembly (figure 3 and figure 7) having a first end cap (6b), a second end cap (the other flange), and a rigid sleeve (6c) having an expandable split (6a), wherein the first and second end caps are attached to the rigid sleeve for the winding wound on.

Since Shano and Kusumoto are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the bobbin assembly as taught by Kusumoto for the winding wound on.

Referring to claim 6, Kusumoto teaches the bobbin assembly (figure 7) wherein the first end cap has an expandable split, the second end cap has an expandable split.

Referring to claim 7, Kusumoto teaches the expandable splits on the first end cap, second end cap and rigid sleeve are aligned (figure 7).

Referring to claim 8, Shano discloses the claimed invention except the material recited in claim. The rigid sleeve is made from metal. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select metal instead of common cold rolled (column 3, lines 5- 6) to be material of the rigid sleeve, since it has been held to be within the general skill if a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin, 125 USPQ 416*

10. Claims 9 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shano and Kusumoto as applied to claim 5 above, and further in view of Barzideh et al. (U.S. Patent No. 5,943,760).

The combination of Shano and Kusumoto refs substantially discloses the claimed invention, except for the added limitations of the first and second end caps are constructed from a laminated structure.

Barzideh discloses in his invention that the first and second end caps (stator yokes 32, and 44) are constructed from a laminated structure (column 3, lines 23 – 27) to make a cheap bobbin assembly.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the caps of the bobbin assembly by laminated as taught by Barzideh. Doing so would provide a cheap bobbin assembly.

Referring to claim 10, Barzideh discloses the first and second end caps are constructed from a polymer (plastic is a polymer).

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shano.

Shano discloses the claimed invention except the material recited in claim. The bobbin assembly is made from steel. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select metal instead of common cold rolled (column 3, lines 5- 6) to be material of the bobbin assembly, since it has been held to be within the general skill if a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin, 125 USPQ 416.*

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shano as applied to claim 2 above, and further in view of Barzideh.

Referring to claim 16, Shano substantially discloses the claimed invention, except for the added limitation of the bobbin assembly is made from an injection molded polymer.

Barzideh teaches a method of making the bobbin assembly from an injection molded polymer to producing a cheap bobbin assembly.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to product a bobbin assembly with an injection molded polymer as taught by Barzideh. Doing so would provide a cheap bobbin assembly.

13. Claims 15, 18, 22 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shano in view of Asao (U.S. Patent No. 6,107,719).

Referring to claim 15, Shano discloses the claimed invention except for the limitation of an insulating layer positioned between the bobbin assembly and the excitation winding.

Asao discloses in his invention an insulating layer positioned between the bobbin assembly and the excitation winding (lines 39 –40, column 1) for protecting the winding.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to product a rotor assembly with an insulating layer between the bobbin assembly and the excitation winding as taught by Asao. Doing so would provide a protection in the winding.

Referring to claim 18, Shano teaches the rotor assembly (figure 3) further comprising an excitation winding (25) wrapped around the bobbin assembly (36); and a pole assembly (33, 34) including a front pole piece (33) and a rear pole piece (34), the pole assembly (33, 34) including an integrated hub (30, 31) for receiving the bobbin assembly wrapped with the excitation winding.

Referring to claim 22, Shano discloses the claimed invention except the material recited in claim. The rigid sleeve is made from metal. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select metal instead of common cold rolled (column 3, lines 5- 6) to be material of the rigid sleeve, since it has been held to be within the general skill if a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin, 125 USPQ 416*

Referring to claim 23, Shano teaches the pole assembly includes a groove (65) that aligns with the expandable split (63) of the rigid sleeve.

Referring to claim 24, Shano teaches the bobbin assembly (figure 3) wherein the bobbin (36) wrapped with the excitation winding (35) is press fit onto the hub (30, 31) of the pole assembly.

14. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Asao as applied to claim 17 above, and further in view of Barzideh.

Asao substantially discloses the claimed invention except for the added limitation of the first and second end caps are constructed from a laminated structure.

Barzideh discloses in his invention that the first and second end caps (stator yokes 32, and 44) are constructed from a laminated structure (column 3, lines 23 – 27) to make a cheap bobbin assembly.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the caps of the bobbin assembly by laminated as taught by Barzideh. Doing so would provide a cheap bobbin assembly.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (703) 305-4864. The examiner can normally be reached on M-F (7:30-5:00) first Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-9176 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

Leda T. Pham
Examiner
Art Unit 2834

TRAN NGUYEN
PRIMARY EXAMINER

LTP
November 1, 2002